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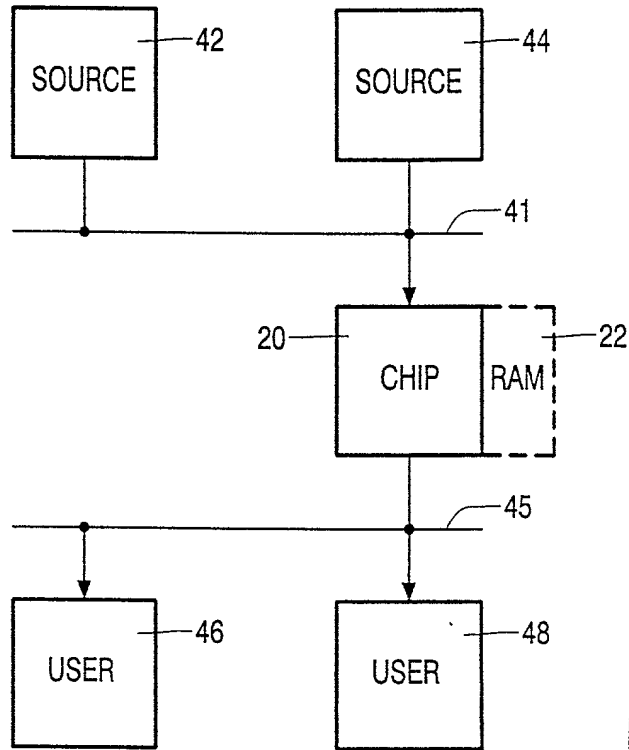


FIG. 1

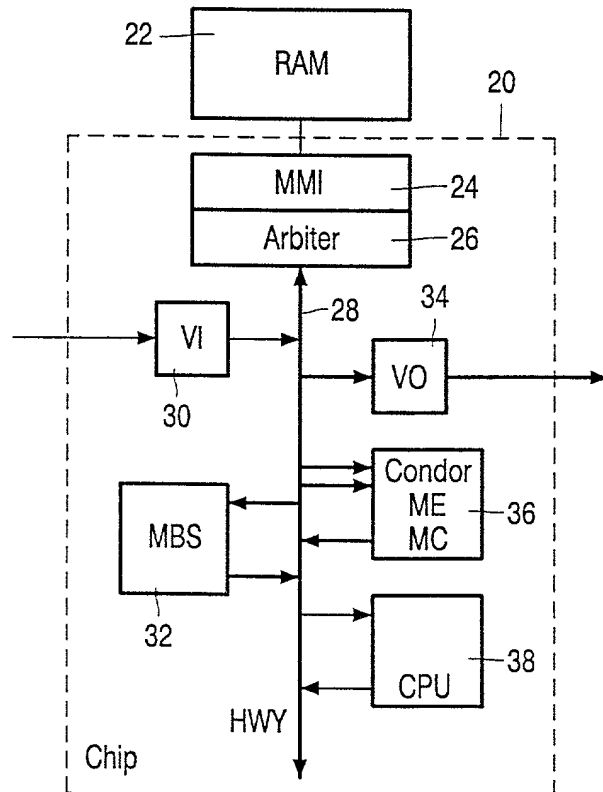


FIG. 2

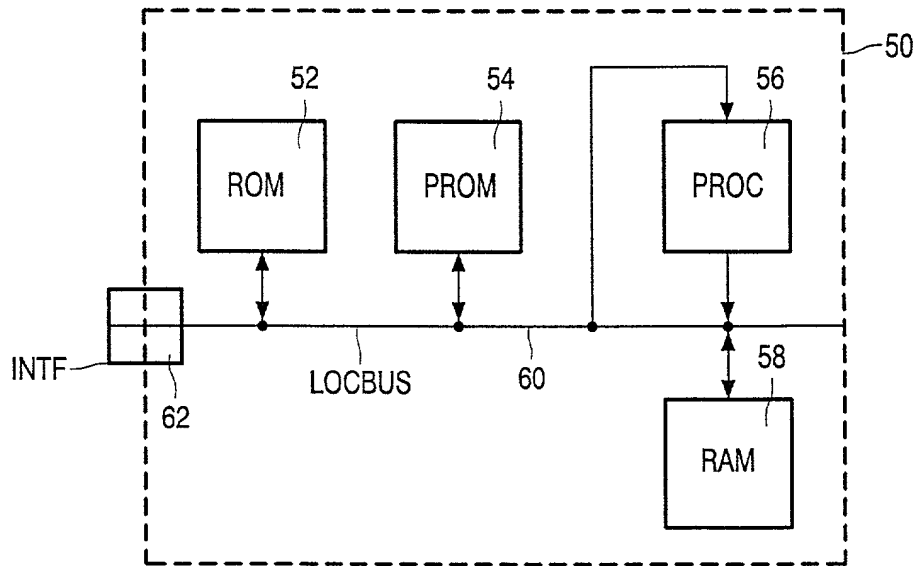


FIG. 3

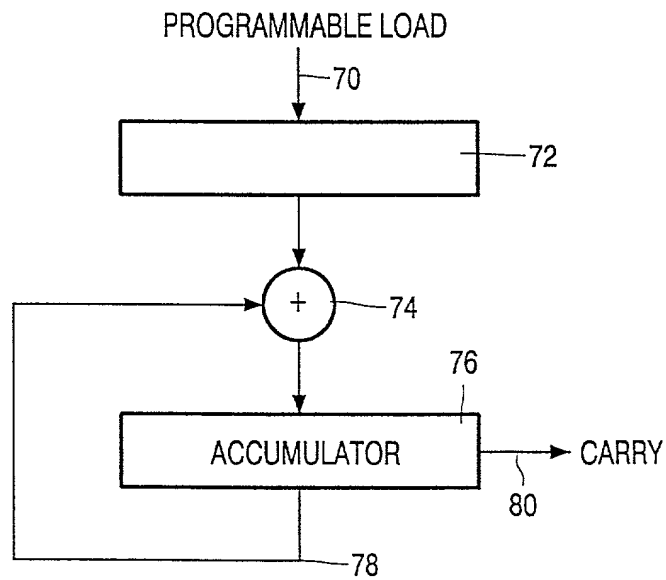


FIG. 4

Table 1 Highway data transfers for 128x8 pixels for frm-fld scalability

|                                 | ME          | MC with<br>50i/60i output | MC with<br>100i/120i or<br>50p/60p output | MC with<br>100p/120p |
|---------------------------------|-------------|---------------------------|---|----------------------|
| Prev. frame input               | 2 x 8       | 2 x 8                     | 2 x 8                                     | 2 x 8                |
| Curr. field input               | 2 x 4       | 2 x 4                     | 2 x 4                                     | 2 x 4                |
| Next frame input                | 2 x 4       | 2 x 4                     | 2 x 4                                     | 2 x 4                |
| Vector input                    | 4           | 1                         | 1   | 1                    |
| Vector output                   | 1           |                           |   |                      |
| SAD best output                 | 1           |                           |   |                      |
| SAD sel. output                 | 1           |                           |   |                      |
| Rec. frame output               |             | 8                         | 8   | 8                    |
| Both display outputs            |             | 4                         | 8   | 2 x 8                |
| <b>Total Transfer</b>           | <b>39</b>   | <b>45</b>                 | <b>49</b>                                 | <b>57</b>            |
| <b>Total Bytes <sup>a</sup></b> | <b>4992</b> | <b>5760</b>               | <b>6272</b>                               | <b>7296</b>          |

a. All transfers are 128 bytes.

FIG. 5

Table 2 Data rates during ME/MC for frm-fld-fld scalability

|             | ME   | MC<br>50i/60i | MC<br>100i/120i or<br>50p/60p | MC<br>100p/120p |
|-------------|------|---------------|-------------------------------|-----------------|
| Bytes       | 4992 | 5760          | 6272                          | 7296            |
| Cycles      | 1024 | 1600          | 1600                          | 1600            |
| Bytes/Cycle | 4.88 | 3.60          | 3.92                          | 4.56            |
| MBytes/sec. | 732  | 540           | 588                           | 684             |

FIG. 6